SANTA CRUZ BIOTECHNOLOGY, INC.

PP5 (H-170): sc-67039

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

In eukaryotes, the phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions including division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the protein phosphatases. In general, the protein phosphatase (PP) holoenzyme is a trimeric complex composed of a regulatory subunit, a variable subunit and a catalytic subunit. Four major families of protein phosphatase catalytic subunit have been identified, designated PP1, PP2A, PP2B and PP2C. An additional protein phosphatase catalytic subunit, PPX (also known as PP4), is a putative member of a novel PP family. PP5, also designated protein phosphatase T (PP-T, PPP5C), a predominantly nuclear protein which belongs to the PPP phosphatase family and the PP-T subfamily, interacts with Cdc16 and Cdc27. It dephosphorylates serine residues of skeletal muscle phosphorylase and histone H1 and may be involved in mitosis and RNA biogenesis regulation.

CHROMOSOMAL LOCATION

Genetic locus: PPP5C (human) mapping to 19q13.32; Ppp5c (mouse) mapping to 7 A2.

SOURCE

PP5 (H-170) is a rabbit polyclonal antibody raised against amino acids 71-240 mapping near the N-terminus of serine/threonine protein phosphatase 5 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

PP5 (H-170) is recommended for detection of PP5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PP5 (H-170) is also recommended for detection of PP5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PP5 siRNA (h): sc-44602, PP5 siRNA (m): sc-44603, PP5 shRNA Plasmid (h): sc-44602-SH, PP5 shRNA Plasmid (m): sc-44603-SH, PP5 shRNA (h) Lentiviral Particles: sc-44602-V and PP5 shRNA (m) Lentiviral Particles: sc-44603-V.

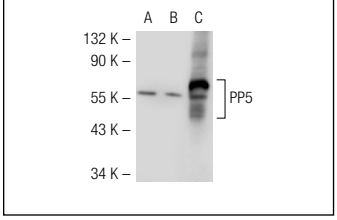
Molecular Weight of PP5: 57 kDa.

Positive Controls: PP5 (m): 293T Lysate: sc-127371, PC-12 cell lysate: sc-2250 or rat brain extract: sc-2392.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PP5 (H-170): sc-67039. Western blot analysis of PP5 expression in non-transfected 293T: sc-117752 (**A**), mouse PP5 transfected 293T: sc-127371 (**B**) and PC-12 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Pöll, F., et al. 2011. Rapid dephosphorylation of G protein-coupled receptors by protein phosphatase 1β is required for termination of β-arrestin-dependent signaling. J. Biol. Chem. 286: 32931-32936.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

ee our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **PP5 (H-7): sc-271816** or **PP5 (G-6): sc-515257**, our highly recommended monoclonal alternatives to PP5 (H-170).